	Application No.	Applicant(s)
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Notice of Allowability	10/813,595	ZDRAVKOVIC, ANDREJ
	Examiner	Art Unit
	Malcolm D. Cribbs	2115

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *the communication on 07/20/06*.

2. ☒ The allowed claim(s) is/are *11-37, 39-44 and 46*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some*   c) ☐ None of the:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of

        Paper No./Mail Date _____ .

    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☒ Interview Summary (PTO-413), Paper No./Mail Date *08/10/06* .

7. ☒ Examiner's Amendment/Comment

8. ☐ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

THOMAS LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes

and/or additions be unacceptable to applicant, an amendment may be filed as provided

by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be

submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview

with Harry Vartanian on 08/09/2006 at 2:31 PM.

IN THE CLAIMS

List of Claims:

1.   (Currently Amended)   A method of reducing power consumption of a system

having at least one processor, the processor being coupled to at least one queue which

stores instructions for execution by the processor, the method comprising:

(a) analyzing at least one input;

(b) estimating ~~the~~ a load of the system based, at least in part, on the analysis of

step (a) and by analyzing ~~the~~ a plurality of types of stored instructions in the at least

one queue and assigning a weight to each one of the instructions based on ~~the~~ an

intensity of processing required for each of the instructions;

(c) determining a clock rate based, at least in part, on the estimation of step (b);

and

(d) clocking the processor at the clock rate determined in step (c).

19.   (Currently Amended)   A method of reducing power consumption of a system having at least one processor, the method comprising:

(a) analyzing at least one input;

(b) estimating a desired processing speed based, at least in part, on the analysis of step (a) and by analyzing ~~the~~ **a plurality of** types of stored instructions in at least one queue coupled to the at least one processor and assigning a weight to each one of the instructions based on ~~the~~ **an** intensity of processing required for each one of the instructions;

(c) determining a clock rate based on the estimation of step (b); and

(d) clocking the processor at the clock rate determined in step (c).

20.   (Currently Amended)   A method of reducing power consumption of a system having at least one processor, the method comprising:

(a) analyzing at least one input;

(b) estimating a desired processing rate based, at least in part, on the analysis of step (a) and by analyzing ~~the~~ **a plurality of** types of stored instructions in at least one queue coupled to the at least one processor and assigning a weight to each one of the

instructions based on ~~the~~ an intensity of processing required for each one of the instructions;

21.   (Currently Amended) A method of reducing power consumption of a system having at least one processor, the processor being in communication with at least one queue which stores instructions for execution, the method comprising:

controlling ~~the~~ a clocking frequency of the processor in response to a prediction of ~~the~~ a load of the system, the load being based, at least in part, on the instructions stored in the queue and by analyzing ~~the~~ a plurality of types of stored instructions in the at least one queue coupled to the at least one processor and assigning a weight to each one of the instructions based on ~~the~~ an intensity of processing required for each one of the instructions.

32.   (Currently Amended) A computer system comprising:

(a) at least one processor;

(b) at least one queue which stores instructions for execution by the processor;

(c) a clock electrically coupled to the processor;

(d) a clock estimation device electrically coupled to the queue and the clock, the clock estimation device being configured to control ~~the~~ a frequency of a clock signal output from the clock to the processor; and

wherein the clock estimation device analyzes ~~the~~ a plurality of types of instructions stored in the at least one queue and assigns a weight to each one of the

instructions based on ~~the~~ an intensity of processing required for each one of the instructions.

41.   (Currently Amended) A computer system comprising:

(a) a first processor;

(b) a first load and clock estimation device electrically coupled to the first processor;

(c) a second processor;

(d) a second load and clock estimation device electrically coupled to the second processor;

(e) an instruction cache electrically coupled to the first and second processors and at least one of the first and second load and clock estimation devices, wherein the first and second load and clock estimation devices are synchronized;

a memory buffer electrically coupled to the instruction cache and the first load and clock estimation device for queuing all instructions waiting to be executed by at least one of the processors; and

the first and second load and clock estimation devices analyze ~~the~~ a plurality of types of instructions stored in the memory buffer and assigns a weight to each one of the instructions based on ~~the~~ an intensity of processing required for each one of the instructions.

46.   (Currently Amended) A computer system comprising:

(a) an optimum clock estimation device;

(b) at least one long term load estimation device electrically coupled to the optimum clock estimation device;

(c) at least one short term estimation device electrically coupled to the optimum clock estimation device;

(d) a clock electrically coupled to the optimum clock estimation device; and

(e) a processor electrically coupled to the clock, wherein each of the long term and short term load estimation devices analyze a set of instructions, and the optimum clock estimation device controls the frequency of a clock signal output from the clock to the processor based on at least one of the long term and short term analysis and a weight assigned to each one of the instructions in the set of instructions based on ~~the~~ **an** intensity of processing required for each one of the instructions.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Malcolm D. Cribbs whose telephone number is 571-272-5689. The examiner can normally be reached on M-F 8AM-430PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Lee can be reached on 571-272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Malcolm D Cribbs
Examiner
Art Unit 2115

August 10, 2006

THOMAS LEE
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TECHNOLOGY CENTER 2100